=> fil reg; d stat que 112; fil capl; d que nos 123; d que nos 124; d que nos 126;d que nos 138;d que nos 143

FILE 'REGISTRY' ENTERED AT 14:57:44 ON 13 AUG 2002

USE IS SUBJECT TO THE TERMS OF YOUR STN CUSTOMER AGREEMENT.

PLEASE SEE "HELP USAGETERMS" FOR DETAILS.

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D'TRUCTURE FILE UPDATES: 12 AUG 2002 HIGHEST RN 443729-39-3 DICTIONARY FILE UPDATES: 12 AUG 2002 HIGHEST KN 443729-39-3

TSCA INFORMATION NOW CURRENT THROUGH MAY 20, 2002

Please note that search-term pricing does apply when conducting SmartSELECT searches.

Crossover limits have been increased. See HELP CROSSOVER for details.

Calculated physical property data is now available. See HELP PROPERTIES for more information. See STNote 27, Searching Properties in the CAS Registry File, for complete details: http://www.cas.org/ONLINE/STN/STNOTES/stnotes27.pdf

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| By Ak + ⊃ 4 5 €€ | Ak II 7 es | 15 G3 G3 Si G4 9 @10 11 | O Ak Ak @14 @12 13 | AK = alkyl |
| 19 H H Si G4 16 @17 13 | 22 G3 H S1 G4 20 @11 213 | 26 H G3 Si G4 24 @25 27 | G1 CH2 G5 CH2 G2 1 2 28 29 3 | Hy = hetwooyoke |

VAR $G1=6'NH_2X/8$ VAR G2=10/17/21/25 VAR G3=12/14/X $VAE = M = 1.11 \cdot M$ 18.16 17 Style=81 NOTE ATTRIBUTED:

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FILE COVERS 1987 - 13 Aug 2002 VOL 197 ISS 7 FILE LAST UPDATED: 12 Aug 2002 (20020812/ED)

This file contains CAS Registry Numbers for easy and accurate substance identification.

TAU roles have been modified effective December 16, 2001. Please theck your SDI profiles to see if they need to be revised. For information on CAS roles, enter HELF FOLES at an arrow prompt or use the CAS Roles thesaurus (/RL field) in this file.

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                       SCK 2026 AND 1006
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              11406 SEA FILE=CAPLUS ARB=ON L12
2317 SEA FILE=CAPLUS ABB=ON SOLID SUPPORT#/OBI
6566 SEA FILE=CAPLUS ABB=ON MICROARRAY?/OBI OR MICRO(L)ARRAY?/OBI
20 SEA FILE=CAPLUS ABB=ON L13(L)L15
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L17
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                  17 SEA FILE-CAPLUS ABBECH L13(L)L17
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                                        737 SEA FILE=CAPLUS ABB=IN L13(L)ANST/RL
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                                  249408 SEA FILE=CAPLUS AFR-IN MODIF?/OBI
                               195093 SEA FILE=CAPLUS ABB=IN DNA+OLD/CT
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                                 96727 SEA FILE-CAPLUS ABB-IN PEFTIDES/CT
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                                    - 6247 DEA FILE=CAPLUS ABB=IN POLYSACCHARIDEC+OLD/CT
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                                                      9 SEA FILE=CAPLUS ABB=ON L37 AND L25
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2317 SEA FILE=CAPLUS ABB=ON SOLID SUPFORT#70B1
56610 SEA FILE=CAPLUS ABB=IN IMMOBILI?70B1
6566 SEA FILE=CAPLUS ABE=ON MICROARRAY?70B1 OR MICRO(L)ARRAY?70B1
L13
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L: 5
                                                       1 SEA FILE=REGISTRY ABE=ON CYTOSINE/CN
L^{2.9}
                                                      1 SEA FILE=REGISTRY ABB=ON GUANINE/CN
L40
                                      10251 SEA FILE=CAPLUS ABP=ON L39 OR CYTOSINE/OBI
L41
                                       37497 SEA FILE CAPLUS ABE ON L40 OR GUANINE/OBI
L42
                                                     8 SEA FILE CAPLUS ABE DN (L18 OR L25) AND (L41 OR L42)
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 INVERTOR (B):
                                                                                                Hirrang, Eishael C., Membasan, Amy L., Mannar,
                                                                                                Firmard V., Warsh, Canis I.
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Company
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Faue 4

The present invention relates, in general, to a method of attaching a biopelymer to a solid support and, in particular, to a method or attaching a nucleic acil to a glass surrace, and to reagents suitable for use in with a method. The invention further relates to the product produced by the present methor and to kits comprising same. Clean microscope slides were silanized with N-(3-diethexymethylsilylpropyl)bromoacetamide (preph. given . Four oligonuclectides differing in only the nucleotide at their (free, 3'-ends were arrayed. When the array was treated with polymerase and fluoresceinated terminator, specific labeling of only the primer with perfect complementarity to the template was obsd. 3179-76-8, (3-Aminopropyl)methyldiethoxysilane 18306-79-1 , 3-Aminopropyldimethylethoxysilane RL: RCT (Reactant); RACT (Reactant or reagent) method of attaching biopolymers to solid supports using brompacetamidosilanes to functionalize supports) 3179-76-8 CAPLUS EN1-Propagamente, 3-(diethoxymethylsilyl)- (901) (CA INDEX NAME) . 117 OEt Me HE COMETS NHE ∴Et 18306-79-1 CAPLUS RH 1-Propanamine, 3-(ethoxydimethylsilyl)- (9CI) (CA INDEX NAME) CMOEt Me Si (CH2)3 NH2 Me 256352-86-0P 256352-87-1P 256352-89-3P RL: B T (Resonant); SPN (Synthetic preparation); FREF (Freparation); EACT Read at la reapart) The first additional and a supports The maintain related and a reliable of the following building stage of the stage of Alexandra y communication of the second of the symptoty of the state of the second of the second of the second

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    1-Butanamine, 4-[methexybis(l-methylethyl)silyl]- (9CI) (CA INDEX NAME)
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    437610-24-7 CAPLUS
    Acetamide, 2-bromo-N-[4-[methoxybis(1-methylethyl)silyl]butyl]- (901) (CA
CN
    INDEX NAME)
     OMe
i-Pr Si (CH2)4 NH C CH2Br
   i-Fr
L45 ANSWER 2 OF 41 CAPLUS COPYRIGHT 2002 ACS
                    2002:172444 CAPLUS
ACCESSION NUMBER:
DOCUMENT NUMBER:
                       136:229021
                       High-density functional slide for biomolecule
TITLE:
                        immobilization and preparation method thereof for use
                        in high-efficiency bic-chip/microarray
INVENTOR(S):
                       Ho, Chih-wei; Chow, Zu-sho; Jan, Bor-iuan; Tsao,
                        Tia-huey; Pen, Char-chi; Kur, Wen-hsun; Chang,
                        Yao-sund; Wu, Chen :-tao; Liu, Yu-chind
PATENT ASSIGNEE (S):
                        Taiwan
PARTIES IN
                        Mint. Part. Appl. Part., 14 pp.:
Mileta Mint.
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form a polymeric soln.; (b) adding the monomer of allyl als. and accolein to the polymeric soln, under anaerobic conditions; and (c) adding deric ammenium nitrate to the soln, for catalysis. The polyvinylale,-based polyaldehyde graff copolymer comprises 2-1% (w/v) polyvinylait., 2-1% vol./vol.% monomer of accelein and 1-5 vol./vol.) monomer of ally? āl...

919-30-2, Aminopropyltriethoxysilane

RL: PRV (Device component use); USES (Uses)

(AITES, sol-gel; high-d. functional slide for biomol. immobilization and prepr. method thereof for high-efficiency bio-chip/

microarray

919-+ -Z CAPLUS E.I.

1-Probanamine, 3-(triethoxysilyl) = (901) (CA INDEX NAME)

OEt

EtC Si (CH2)3 NH2

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L41 ANSWER 3 OF 41 CAPLUS COPYRIGHT 2002 ACS

ACCESSION NUMBER:

2002:30792 CAPLUS

DOCUMENT NUMBER:

136:275612

TITLE:

Characteristics of DNA microarrays

fabricated on various aminosilane layers

AUTHOR (NO:

Oh, Soon Jin; Cho, Sung Ju; Kim, Chang Ok; Park, Joon

CORPORATE SOURCE:

Center for Integrated Molecular Systems, Department of Chemistry, Division of Molecular and Life Sciences, Pohang University of Science and Technology, Pohang,

790-734, S. Korea

SOURCE:

Langmuir (2002), 13(5), 1764-1769CODEN: LANGD5; ISSN: 0743-7463

EUBLISHER:

American Chemical Society

POCIMENT THEE:

LANGE MAGE:

Journal English

Four kinds of aminosilane layers on glass slides or silicon waters were prepd. The amine densities of the layers prepd. with the that had, an apiridine-treated surface showed embouned marphol. The anine concernates were allowed to react with a heterobitunctional linker one circuitiy: 4-malenmid: butyrate (MB), and subsequently gentale sadé wondise tides webe misé arrâged in the MH-theated outration that. Coura terros so in the INV mist array on is a ring dynamic can be, the romat do dos escributo a Priblica e., Andre o trath were Award. Motow ethills,

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(DNA microarrays fabricated on various aminosilane layers)
               919-30-2 CAPLUS
CN
              1-Propanamine, 3-(triethoxysily1)- (901) (CA INDEX NAME)
               OEt
EtO Si (CH;)3 NH;
               OEt
F.N
               3179-76-8 CAPLUS
               1-Propanamine, 3-(diethoxymethylsilyl)- (9CI) (CA INDEX NAME)
CN
            OEt
Me Si (CH2)3 NH2
            Œt
              18306-79-1 CAPLUS
              1-Propanamine, 3-(ethoxydimethylsilyl)- (9CI) (CA INDEX NAME)
            OEt
Me Si (CH2)3 NH2
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REFERENCE COUNT: 45 THERE ARE 45 CITED REFERENCES AVAILABLE FOR THIC
                                                                                            RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT
L45 ANSWER 4 OF 41 MARLUS COFFRIGHT 2002 ACC
ACCESSION NUMBER:
                                                                          -2002:51931 CAPLUS
                                                                            136:30856
DOCUMENT NUMBER:
TITLE:
                                                                           Compositions and methods for array-based denomin-
                                                                           invitei madifianalyolo (talina qlod) molember
                                                                             <u>Brail</u>ey, Albang Sal, Wol-Weng Har Bull, Spendra
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Page 8

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group. The invention also provides arrays, or "biochips," comprising
            these modified biol. mols. Also provided are methods for making and using
            these compas.
            919-30-2, 3-Aminopropyltriethcxysilana 2530-83-8,
            3-dly idoxypropyltrimethoxysilane
            RL: Aks (Analytical reagent use); BUU (Biological use, unclassified);
            ANST (Analytical study); BIOL (Biological study); USES (Uses
                    in myons, and methods for array-based genomic nucleic acid anal, of
                   bid. mels.)
            919-89-20 CAPLUS
             1-Proposition, 3-[triethoxysily1'= (301) [CA INDEX NAME]
             OEt
Etc Si (CH2)'s NH2
            OE+
            2530-83-8 CAPLUS
EU
            Silane, trimethoxy(3-(oxiranylmethoxy)propyl)- (9CI) (CA INDEX NAME)
                                                    OMe
             CH2 (CH2)3 Si OMe
                                                    OMe
L45 ANSWER 5 OF 41 CAPLUS COPYRIGHT 2002 ACS
ACCESSION NUMBER:
                                                               2002:51489 CAPLUS
DOCUMENT NUMBER:
                                                               136:98799
TITLE:
                                                               Improved combination of microperous membrane and solid
                                                               support for micro-analytical diagnostic applications
FATENT ADDI DUFE D.:
                                                               Cuno, Inc., USA
COME E:
                                                               PCT Int. Appl., 39 pp.
                                                               CODEN: PIXXD2
DOCUMENT TYPE:
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wherein the porcus tylon multi-cell substrate is covalently bonded to a
     solid base member, such as, for example, a glass or Mylar microscope
     slide, such that the combination produced thereby is useful in microarray
     applications. App. for fabricating a multi-cell substrate is also
     disclosed. Diagrams describing the app. are given.
     919-30-2, 3-Aminopropyltriethoxysilane 1760-24-3,
     N-(2-Amincethyl)-2-aminopropyltrimethoxysilane 2530-83-8,
     3-Glycidoxypropyltrimethoxysilane
     RL: NUU (Other use, unclassified); USES (Uses)
        (improved combination of microporous membrane and solid
        support for mimc-anal. diagnostic applications)
RN
     919-30-2 CAPLUS
CN
     1-Propanamine, 3-(triethoxysily1)- (901) (CA INDEX NAME)
     OEt
EtO Si (CHp) a NHp
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RN
     1760-24-3 CAPLUS
CN
     1,2-Ethanediamine, N-[3-(trimethoxysilyl)propyl]- (9CI) (CA INDEX NAME)
     ∂Ме
MeO Si (CH2)3 NH CH2 CH2 NH2
     ⊙Ме
     2530-83-8 CAPLUS
RN
     Gilane, trimethoxy[ /= (exiranylmethoxy pacpyl] = (901) (CA INDEX NAME
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DOCUMENT HUMBER:
TITLE:
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are derivatized with various nucleorhiles or electrophiles. In the latter case, a variety of surface chemistries have been developed, and several ar- available com. These chemistries must be compatible with manulater-scale cols, of polynuclectide reagents, which contact the array over a small portion of their surface. We reasoned that a throw-dimensional polymer coating could potentially offer greater surface mintar and higher binding efficiency. Here we describe a roly-thylenimine-based scating chem. that provides exceptional hinding and hybridization characteristics. In our preferred process, size-tractionated polyethylenimine polymers are cross-linked onto an aminopropylsilanated glass surface in the presence of cyanuric chloride. The resulting three-dimensional coating binds polynucleotides through a mixt. of covalent and noncovalent interactions as evidenced by comparisons between 5'-aminoalkyl modified and unmodified polynucleotides. Binding and hybridization comparisons are presented including analogous two-dimensional electrophilic and electrostatic chemistries.

13822-56-5, 3-Aminopropyltrimethoxysilane EL: RoT (Readtant); RACT (Reactant or reagent)

lettratent binding chem. for glass polynucleotide microarrays , synthesis and characterization of glass surface coatings)

EN 19822-f6-5 CAPLUS

1-Eropanamine, 3-(trimethoxysilyl)- (901) (CA INDEX NAME)

OMe

MeO Si (CHg)3 NH2

OMee

REFERENCE COUNT:

THERE ARE 17 CITED REFERENCES AVAILABLE FOR THIS 17 RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

14" ANSWER 7 OF 41 CAPLUS COPYRIGHT 2002 ACC ACCESSION HUMBER: 2001:362771 CAPLUS

DOCUMENT NUMBER:

136:163471

HFLC of some nucleosides and bases on

p-tert-butyl-calix[6]arene-bonded silica del

stationary phase

AMTHORES :

Xiao, Yu-Xiu; Xiao, Xianu-Chu; Feng, Yu-Qi; Wana,

Xiao, Yu-Xiu; Xiao, Xiang-dhu; reng, Yu-Qi; Wand,
Thom=Hua; ia, Thi-In
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RL: ARU (Analytical role, unclassified; ANST (Analytical study)
                                       (HPLC of nucleosides and bases on p-tert-butyl-calix[6] arene-bonded
                                       silica gel stationary phase)
                         5089-72-5 CAPLUS
RN
                         1,2-Ethanediamine, N-{3-(triethoxysily1)propy1}- (9CI) (CA INDEX NAME)
CN
                         OEt
FtO Si (CH2)3 NH CH2 CH2 NH2
                         OEt
                        71-30-7, Cytosine 73-40-5, Guanine
 ΙT
                         RL: PEP (Physical, engineering or chemical process); FYP (Physical
                         process); PROC (Process)
                                       (EPLC of nucleosides and bases on p-tert-butyl-calix[6]arene-bonded
                                      silica gel stationary phase)
F.N
                         71-30-7 CAPLUS
                         2(1H)-Pyrimidinone, 4-amino- (9CI) (CA INDEX NAME)
CN
                         H
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                                                 NH2
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                         73-40-5 CAPLUS
                         6H-Purin-6-one, 2-amino-1,7-dihydro- (9CI) (CA INDEX NAME)
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             TE, TH, CI, DE, DK, DM, DI, EE, ES, FI, GB, GL, GE, GE, WM, HR,
             H", IU, IL, IN, IS, JP, KE, KG, KF, KR, KZ, LC, LK, LK, LS, LT,
             L", LV, MA, MD, MG, MK, MN, MW, MX, ME, NO, NZ, FL, FT, RO, RU,
             SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, UZ, VN, YU,
             ZA, SW, AM, AS, BY, KG, KZ, MD, RU, TJ, TM
        PW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TS, TG, ZW, AT, BE, CH, CY,
             DE, DE, ES, FI, FR, GB, GR, IE, IT, LD, MC, NL, FT, SE, TR, BF,
             BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG
                                         US 2001-823648 20010330
    US 2002081597
                     A1 20020627
                                        US 2000-193767P F 20000331
FRIORITY APPLN. INFO.:
    Compass, and methods for improving detection sensitivity in nucleic acid
    microarray anal. are disclosed, including methods of purifying nucleic
    actids, methods of synthesizing fluorescent DNA probes, methods of
     hybridization, and methods of activating a substrate for target mol.
     attachment. The compns. and methods of this invention include synthesis
     of cDNA, sDNA, or cRNA probes from cellular KNA by in vitro transcription
     and or a single-round of reverse transcription with incorporation of
     fluorechromes. Specific procedures for microarray slide prepr. to
    decrease background fluorescence are given. For example, silanization of
     glass slides with toluene as the solvent is preferred. In addn.,
     unmodified polynucleotides can attach to a glass slide treated with
     3-aminopropyltriethoxysilane followed by phenylene diisothiocyanate.
    Modified target DNA can also be synthesized using PCR primers which
    contain a primary amine and an alkyl linker attached to the 5'-end. The
     modified target DNA is then reacted with activated silanized glass slides.
    Microarray hybridization buffers contg. alkylammonium salts,
    dimethylsulfoxide and formamide and lacking the detergent sodium dodecyl
     sulfate also improved the detection sensitivity. The invention is
     illustrated with microarrays hybridized with fluorescent probes
     synthesized from very small quantities of RNA isolated from microdissected
     tumor rells, paraffin-embedded liver and colon tissue, fresh frozen liver
     tissue, and fresh frozen colon tissue. The microarray expts. were
     designed to compare tissue sample preph. methods and gene expression in
     tumor vs. healthy tissues. An example of the sensitivity of these methods
     shows a microarray hybridized with sDNA probes from one round of
     amplification of 2 pg of RNA from an ovarian carcinoma sell line.
     919-30-2, 3-Aminopropyltriethoxysilane
     Fl: Pro (Piplogical use, unclassified); PEV (Device component use); RCT
     decay and in Pictor Pictor Birth and Consider a PACTOR Personant on Personal and Constitution
         or principal directs. As to relete thing and grant riving decese with each in the
       microarrays
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SOURCE:

FCT Int. Appl., 25 pp.

OPEN: FIMMOL

DOCUMENT TYPE:

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LANGUAGE:

English

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

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PATENT NO. KINE DATE APPLICATION NO. DATE
WO 2001070641 AT 20010927 Wo 2001-US8993 20010321
    W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN,
         CO, CR, CU, CZ, DE, DK, DM, DZ, EE, ES, FI, GB, GD, GE, GH, SM,
         HR, HU, ID, IL, IN, IS, SF, KE, KG, KP, KE, KZ, LC, LK, LR, LS,
         LT, LU, EV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PL, FT, RO,
         RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, UZ, VN,
         YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM
    FW: GH, GM, KE, LS, MW, ME, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY,
         DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG
US 6413722 B1 20020702 US 2000-532419 20000322 US 2002037509 A1 20020328 US 2001-775319 20010201
US 6387631
                  B2 20020514
                                        US 2000-532419 A 20000322
```

PRIORITY APPLM. INFO.:

OTHER SOURCE(S): MARPAT 135:269660

Methods are provide for modifying a solid support, such as a glass slide, by silylating with an agent having the formula ${\tt H2N(CH2)}{\tt nSiX3}$ (n = 1-10, X = independently chosen from OMe, OEt, Cl, Br, I), then activating with a crosslinking reagent, followed by reacting with an amine-contg. polymer. The support can optionally be reacted with a crosslinking reagent again. The support thus modified may be used to make arrays and microarrays where a plurality of targets are stably assocd, with the support and arranged in a defined manner. Thus, glass slides were silylated with 3-aminopropyltrimethoxysilane. The silylated slides were reacted with cyanuric chloride then with FEI, polylysine, or polyhistidine. 3'-Aminoalkyl-terminated bligenucleotides were spotted on such slides and used in hybridization assays.

13822-56-5, 3-Aminopropyltrimethoxysilane ΙΤ

RL: RCT (Reactant); RACT (Reactant or reagent)

(polymer coated surfaces for microarray applications:

13822-56-5 CAFLUS RN

1-Propanamine, 3- trimethowycilyl- - 407 - 30A BUEN MAME: CH

VI SHE CAN

 $\cup M \ominus$

FEFEFENCE COUNT:

THERE ARE SOUTHED REFERENCED AVAILABLE FOR THIS REPORTS OF SHAT

FMFLISHER:

Wiley-VCH Verlag GmbH

DECUMENT TYPE: LANGUAGE:

Journal Enalish

The peneration of chem. activated glass surfaces is of increasing interest for the product of microarrays contg. DNA, proteins, and low-mel.-wt. components. We here report on a novel surface chem. for highly efficient activation of glass slides. Our method is based on the initial modification of glass with primary amino groups using a protocol, specifically optimized for high aminosilylation yields, and in particular, for homogeneous surface coverages. In a following step the surface amino groups are activated with a homobifunctional linker, such as disurrinimidylglutarate (DSG) or 1,4-phenylenediisothiocyanate (FDITC), and then allowed to react with a starburst dendrimer that contains 64 primary amino groups in its outer sphere. Subsequently, the dendritic monomers are activated and crosslinked with a homobifunctional spacer, either DSG or PDITC. This leads to the formation of a thin, chem. reactive polymer film, covalently affixed to the glass substrate, which can directly be used for the covalent attachment of amino-modified components, such as oligonucleotides. The resulting DNA microarrays were studied by means of nucleic acid hybridization expts. using fluorophoriabeled complementary oligonucleotide targets. The results indicate that the novel dendrimer-activated surfaces display a surface coverage with capture oligomers about twofold greater than that with conventional microarrays contq. linear chem. linkers. In addm., the expts. suggest that the hybridization occurs with decreased steric hindrance, likely a consequence of the long, flexible linker chain between the surface and the DNA oligomer. The surfaces were found to be resistant against repeated alk, regeneration procedures, which is likely a consequence of the prosslinked polymeric structure of the dendrimer film. The high stability allows multiple hybridization expts. without significant loss of signal intensity. The versatility of the dendrimer surfaces is also demonstrated by the covalent immobilization of streptavidin as a model protein.

392661-75-5 392661-76-6

RL: ARU (Analytical role, unclassified); DEV (Device component use);

ANST (Analytical study); USES (Uses)

condensation on silica; dendrimer-activated solid supports for nucleic acid and protein microarrays)

 $\mathbb{R}\mathbb{H}$

392661-75-5 CAPLUS

Pentanamide, 5-[((,5-dioxe-1-pyrrolidiny!)cxy]-5-exe-N-[3-(triethexysily!)propyl]- (9CI) (CA INDEX NAME)

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MH 'MH (CH2 : Si (Et

OEt

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REFERENCE COUNT:

THERE ARE 34 CITED REFERENCES AVAILABLE FOR THIC 3.4 RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L45 ANSWER 11 OF 41 CAPLUS COPYRIGHT 2002 ACS

ACCESSION NUMBER:

2001:611699 CAPLUS

DOCUMENT NUMBER:

135:177672

TITLE:

Linear microarrays

INVENTOR(S):

Johann, Timothy W.; Park, Sang Chul Incyte Genomics, Inc., USA

PATENT ASSIGNEE(S):

SOURCE:

U.S., 11 pp.

DECUMENT TYPE:

CODEN: USXXAM

LANGUAGE:

Fatent Enalish

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

| PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|-----------------------|-------|------------|------------------------|------------|
| | | | | |
| US 6277628 | B1 | 20010821 | US 1998-165465 | 19981002 |
| US 2002072065 | A1 | 20020613 | US 2001-933570 | 20010820 |
| PRIORITY APPLN. INFO. | : | | US 1998-165465 Al | 19981002 |
| AB The present invo | ntion | provides a | method and a compn. fo | or detecti |

levels of a plurality of biomol. probes in a sample. In particular, the invention relates to a hybridization compn. for detecting the presence or levels of different polynucleotide sequences in a sample. A YF3 5 mer labeled at the steend with a Cy3 fluorescent dye was immobilized on epoxide-coated glass beads. A capillary tube was packed with the beads sepd. by alternating unmodified beads to prep. a glass bead array.

ΙT 2530-83-8, 3-Gly idexypropyl-trimethoxysilane RL: RCT (Reactant); RACT (Reactant or reagent)

(linear microarrays)

2530-83-8 CAPLUD RN

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CHEER ARE 4 CITE PERFERNIES AVAILABLE FOR THIS FEFFERMAN A TOOLE PROME. ADDITIONAL MOLAVADIANIA IN THE EFFE FIRA

CODEN: NARHAD; ISSN: 0305-1048

PUBLISHER:

Oxford University Press

DUCUMENT TYPE: LANGUAGE:

Journal English

The double helix is known to form as a result of hybridization of many lementary numbers acid strands in aq. solm. In the helix the next that will phosphate aroups of each nucleic acid strand are distributed helically on the outside of the duplex and are available for interaction with sationic groups. Cation-coated glass surfaces are now widely used in Figure Encol., esp. for covalent attachment of cDNAs and oligonuclectides as surface-bound probes on microarrays. These satisfic surfaces can bind the nucle, racid hackbone electrostatically through the phosphate majety. Here we describe a simple method to fabricate PNA microarrays based upon adsorrtive rather than covalent attachment of oligonucleotides to a pos. charged surface. We show that such adsorbed eligonucleotide probes form a densely packed monolayer, which retains capacity for base pair-specific hybridization with a soln. state DNA target strand to form the duplex. However, both strand dissoon. kinetics and the rate of DNase digestion suggest, on symmetry grounds, that the target DNA binds to such adsorbed oligonucleotides to form a highly asym, and unwound duplex. Thus, it is suggested that, at least on a charged surface, a non- helical DNA duplex can be the preferred structural isomer under atd. biochem. Conditions.

13822-56-5, 3-Aminopropyltrimethoxysilane

RL: Akd (Analytical reagent use); ANST (Analytical study); USES

coligonusleotides form duplex with non-helical properties on pos. charged surface)

EE13822-5€-5 CAPLUS

1-Proponamine, 3-(trimethoxysilyl)- (901) (CA INDEX NAME)

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Med Si [MH]] - NH2

13.

REFERENCE FOUNT: 11 THERE ARE 11 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

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Analytical letters of livering of the profits
TIPM: AMALES INTERCORP.

for six successive detns. at 1.times.10-6 mol/L soln. The detection limit is 2.times.10-7 mol/L.

13822-56-5, (3-Aminopropyl) Trimethoxysilane ΙT

RL: ARU (Analytical role, unclassified); DEV (Device component use;;

ANST (Analytical study); USES (Uses)

(DNA immobilization on nano-gold modified ITO for detn. of mifepristone)

13822-56-5 CAPLUS P.N

1-Propanamine, 3- "lime" Loxysilyl' = (921) (CA IMLEX NAME) CN

OMe

MeO Si (CH2+3 NH2

OMe

REFERENCE COUNT:

16 THERE ARE 16 CITED REFERENCES AVAILABLE FOR THIC RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L45 ANSWER 14 OF 41 CAPLUS COPYRIGHT 2002 ACS

ACCESSION NUMBER: 2001:320307 CAPLUS

DECUMENT NUMBER: TITLE:

134:363619

A factorial analysis of silanization conditions for

the immobilization of oligonucleotides on glass

surfaces

AUTHOF(S):

Halliwell, Catherine M.; Cass, Anthony E. G.

Department of Piochemistry Imperial College of Science CORPORATE SOURCE:

Technology and Medicine, University of London, London,

SW7 2AY, UK

SOURCE:

Analytical Chemistry (2001), 73(11), 2476-2483

CODEN: ANCHAM; ISSN: 0003-2700

PUBLISHER:

American Chemical Society

DOCUMENT TYPE:

Journal

LANGUAGE:

English

The modification of plass surfaces with (3-mercaptopropyl)trimethoxysilane AB and the application of this to LNA chip technol, are described. A range of factors influencing the silanization method, and hence the no. of surface-bound, chem. active thick groups, were investigated using a desim. of expt. approach based on anal. It variance. The no. of thiol groups introduced in allow substrates were measured directly using a specific radictated, (14.5) by teamine my Herbitotic. For our p -phase ordanization, the near or confige-booms this language was round to be dependent in a thi portuil amoration the real ordinary and vocationation times and recatabely independent of colors are sensul, reaction temp., and wample pretreatment. lepending in the conditions has been not people dilamination, these times. Following a proposition that dissistantles were bound. The reliability and repeatability of Fig. - and vacuum-phase silanization were also investibuted. Fighteen-labered in nucleatide probes were advalently that held to the modified burnaries will a fighteen in the LNA and bulk sequent as a train with the or splinking relatent N=(, ramma.-male imid at yry, may be usually a section 2003).

919-30-2, produced by the state of the state

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clidenuclectides on glass surfaces) 419-31-2 CAPLUS F_{ij}^{ij}

1-Frojanamine, 3- triethoxysilvi. - (901) (CA INDEX NAME)

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1. E.

REFERENCE WUNT:

42 THERE ARE 42 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L45 ANSWER 15 OF 41 CAPLUS COPYRIGHT 2002 ACS

ACCESSION NUMBER:

2001:284303 CAPLUS

DOCUMENT NUMBER:

135:42876

SOURCE:

Poptide and small melecule microarray for

high throughput cell adhesion and functional assays Falsey, James R.: Renil, M.; Fark, Steven; Li, Shijun;

AUTHOR (S : Lam, Kit 3.

CORPORATE COURCE:

UC Davis Cancer Center Division of Hematology/Oncology

and Department of Internal Medicine, University of

California Davis, Sacramento, CA, 95317, USA

Bioconfugate Chemistry (2001), 12(3), 346-353

CODEN: BCCHES; ISSN: 1043-1802

American Chemical Society

PUBLISHER: DOCUMENT TYPE:

Journal

LANGUAGE:

English

A novel class of chem. microchips consisting of glass microscope slides was prepd. for the covalent attachment of small mol. ligands and peptides through site-specific oxime bond or this colidine ring ligation reaction. com. available microscope slides were thoroughly cleaned and derivatized with 3-aminopropyl)triethoxysilane (APTES). The amino slides were then conterted to alyoxylyl derivs. via two different routes: (1) coupling of Fmoc-Ser followed by deprotection and oxidn., or (2) coupling with protected glyoxylic acid and final deprotection with HCl. Piotin or peptide ligands derivatized at the carboxyl terminus with a 7,10 trioxa-1,13-tridecanediamine subcinimib acid linker and an amino-exy group or a 1,2-amino-thick group (e.g., cysteine with a free amino-exy group of a 1,2-amino-thiologroup (e.g., cysteine with a free N. alpha. - min on up to were printed into these calibes using a 2NA run array up them. After men, limiting, the min array of conditional intensity and analyzed with three different nion, assays: ill protection on a say with into respect to the first protection of a first conditional properties of other conditions. The first conditions are approximately to a say with intensity and a first conditions of the first conditions and the same of the first conditions are also say with intensity conditions and the same of the first conditions are also say with the same of t specifically of the pertide against different cell lines, we can also det. to dimit post in with on the microchip. This diem, microchip system enables out to any filtronia yee the comptical properties of numerous libraris that we have dentified in moties "one-read ne-ongo." one indonesing that

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REFERENCE COUNT:

THERE ARE 42 CITED REFERENCES AVAILABLE FOR THIS 42. RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L45 ANSWER 16 OF 41 CAPLUS COFYRIGHT 2002 ACS ACCESSION NUMBER: 2001:159116 CAPLUS

DOCUMENT NUMBER:

CORPORATE SOURCE:

134:307437

TITLE:

Controlled immobilization of DNA molecules using

chemical modification of mica surfaces for atomic

force microscopy: Characterization in air

Umemura, Fazuo; Ishikawa, Mitsuru; Kuroda, Reiko Joint Research Center for Atom Technology

(JRCAT) - Angstrom Technology Partnership (ATP),

Tsukuva, Ibaraki, 305-0046, Japan

Analytical Biochemistry (2001), 290-2), 232-237 SOURCE:

CODEN: ANDCA2; ISSN: 0003-2697

PUBLISHER:

AUTHOR(S):

Academic Press

DOCUMENT TYPE: Journal LANGUAGE: Enclish

Immobilization of biomols, on surfaces while keeping the max. conformational flexibility of the mols, is one of the most important techniques for at. torce microscopy imaging. We have developed two methods of controlling adsorption of DNA mols, on mica surfaces. The first method is the use of a mica surface modified with dild. 3-aminopropyltriethoxysilane (APS). Here we named this a "dild. AP3-treated mica (AF-mica)" technique. The second method is the use of a mica surface modified with mixed self-assembled monolayers of organisilanes. In both of the techniques, the no. of DMA mols. immobilized on a mica surface was controlled. Further, a conformational change of circular DNA, from a supercoiled to a relaxed form was obsd. for the mols. immobilized on a dild. AF-mica surface, when 254-nm UV light was irradiated. This Asservation demonstrated that flexibility of directar DNA mols, was kept on a dild. AF-mida surface. (b) 2001 Academic Press.

919-30-2, 3-Aminopropyltriethoxysilane î T

RL: AEU (Analytical role, unclassified); DEV (Device component use); ANST (Analytical study); TOBA TOBA

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17.

microarrays

INTENT: B. C. Ansorge, Wilhelm; Faulstich, Konrad

PATENT ASSIGNEE (S): Europaeisches Laboratorium Fuer Molekularbiclogie

(EMBL), Germany

FCT Int. Appl., 38 pp. CCTRCE:

CODEN: PIXMPI

COMMENT TYPE:

Fatent.

LAN FIASE:

German

FAMILY ATT. NUM. COUNT: FATENT INFORMATION:

| F.A | FATENT NO. | | | KI | ND | DATE | | A. | PPLI | CATI |). | DATE | | | | | |
|------------|-------------|------------|------|-------------|-----|------|------------------------|-------------------------|------|------|--------|------|--------------|------|---------|----------------------|-----|
| — — Wc: | 2001 | 2001014585 | | A1 20010301 | | | | | W | 0 20 | 00-E | 3 | 20000822 | | | | |
| | W: | ΑE, | ΑG, | AL, | AM, | AT, | ΑU, | AZ, | BA, | BB, | BG, | BR, | BY, | ΒZ, | CA, | $\mathrm{CH}_{m{r}}$ | CN, |
| | | CR, | CU, | Co, | DE, | DK, | DM, | DZ, | EE, | ES, | FI, | GB, | GD, | GE, | GH, | GM, | HR, |
| | | ΗII, | II., | ΙL, | IN, | īΞ, | JF, | ΚE, | KG, | KE, | KR, | KZ, | LC, | LK, | ĽK, | LC, | LT, |
| | | LU, | LV, | ΜA, | MD, | MC, | MK, | MN, | MW, | MX, | MΖ, | NO, | NZ, | FL, | ΕT, | RO, | RU, |
| | | SI, | SF, | sa, | SI, | SF, | SL, | TJ, | TM, | TR, | TT, | -2, | UA, | UG, | us, | 172, | VH, |
| | | | | | | ΑZ, | | | | | | | | | | | |
| | FW: | | | | | | | | | | | | | ΑT, | | | |
| | | DE, | DK, | ES, | FI, | FF., | GB, | GF, | ΙE, | IT, | LU, | MC, | NL, | PΤ, | SE, | BF, | ВJ, |
| | | | | | | GZ, | | | | | | | | | | | |
| | DE 1001€073 | | | | | | DE 2000-10016073 20000 | | | | | | | | | | |
| Ε£ | | | | | | | | EP 2000-962356 20000822 | | | | | | | | | |
| | R: | AT, | BE, | CH, | DΕ, | DE, | ES, | FF., | GB, | GR, | ΙT, | LI, | LU, | NL, | SE, | MC, | PΤ, |
| | | ΙE, | SI, | LT, | LV, | FΙ, | RO, | | | | | | | | | | |
| FRIORIT | Y APP | LN. | INFO | . : | | | | | | | | | | 1999 | | | |
| | | | | | | | | | | | | | | 5000 | | | |
| | | | | | | | | | WO 2 | 000- | EP81 | 93 | V_{Δ} | 2000 | 0 5 2 2 | | |

The invention relates to methods for covalent immobilization of AB biopolymers, esp. those of nucleic acids, on a solid phase. Covalent bonds are made between primary or/and secondary amino groups of said biopolymers and groups of the solid phase which react with said amino groups. Silica-based solid phases with defined functional groups are used for the immobilization of 5' amino-modified nucleotides; the prepd. PNA microarrays are used in amplification procedures.

RI: DEV (Device component use); USES (Uses) emethod for covalent immobilization and labeling of biopelymers esp. prepr. of nucleic acid microarrays

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SOURCE:

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PCT Int. Appl., 85 pp.

CODEN: FIXXD2

DOCUMENT TYPE:

Fatent English

LANGUAGE:

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO. KIND DATE APPLICATION NO. DATE

We 200079000 AT 20001228 We 2000-USIC'22 20000616

W: AU, CA, SE, US

RW: AT, FE, H, Y, LE, DK, EC, EI, FR, GE, GK, IE, IT, LU, MS, NL,

PT, SE

PRIORITY APPLN. INFO.:

UN 1999-139845F F 19990617

Arrays of HLA Class I oligenuclectide probes on a solid support are provided, wherein the probes are sufficient to represent at least 80% of the known polymorphisms in exons 2 and 3 of the HLA Class I locus.

13822-56-5, Aminopropyltrimethoxysilane ΤT

RL: ARU (Analytical role, unclassified); BUU (Biological use, unclassified); THU (Therapeutic use); ANST (Analytical study); BIOL (Biological study); USES (Uses)

(solid support derivatized with; oligonucleotide

arrays for high resoln. HLA typing and transplant compatibility anal.)

RN13822-56-5 CAPLUS

CN 1-Propanamine, 3-(trimethoxysilvl)- (9C1) (CA INDEX NAME)

OMe

MeO Si (CH2)3 NH2

OMe

REFERENCE COUNT: 5 THERE ARE 5 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L45 ANSWER 18 OF 41 CALLUS CUEYRIGHT DOLL ACS

ACCESSION NUMBER:

2000: 498959 CALLEY

DOCUMENT NUMBER:

34:292352

TITLE:

' valent attachment of DNA to glass supports using a

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as the state in

ATTH WORLD'S

Chand, Gu. Sun; Ch. J., Yikal; Wu, Miaryan; Yuan, Cinwei;

Bon, Alla

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~ :- - - 1

CCLEN: STMUEL; LAST: 6187-716X Tomasi Medical University

FUBLISHER:

PROTUNENT TYPE: Contain the second of the se

RL: ART (Analytical role, unclassified); BAC (Biclouical activity or effector, except adverse); BFR (Biclogical process); BSD (Biclogical study, unclassified); ANST (Analytical study); BIOL (Biological study); EkoC (Process)

in valent attachment of DNA to glass supports using a new silane

tourling agent and chemiluminescent detection:

1.11 919-x -2 CAPIUS

1-Propagamine, <-(triethoxysily1)- [9CI] [CA INDEX NAME)

OEt

Eto Si (CHN) - NHN

(:E]+

REFERENCE ANDNY:

THERE ARE 8 CITED REFERENCES AVAILABLE FOR THIS 13 RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

14: ANSWER 20 OF 41 CAPLUS COPYRIGHT 2002 ACS

ACCESSION NUMBER: DOCUMENT NUMBER:

2000:670568 CAPLUS 134:159600

TITLE:

Protein microarrays for monitoring of structural changes of proteins via surface enhanced metal nano

cluster resonance

AUTHOR(S):

Mayer, Christian; Palkovits, Roland; Bauer, Georg;

Schalkhammer, Thomas

CORPORATE COURCE:

Kluyver L. for Biotechnology, TM-Delft, Delft, 2028BC,

Neth.

DOURCE:

Micro Total Analysis Systems 2000, Proceedings of the .mu.TAS Symposium, 4th, Enschede, Netherlands, May 14-18, 2000 (2000), 553-556. Editor(s): Van den Berg, Albert; Olthuis, W.; Bergveld, Piet. Kluwer Academic Publishers: Dordrecht, Neth.

CODEN: 69AJPR

HOSSMENT TYPE:

Conference

LAN MAGE:

English

Structural changes of ultra thin protein layers caused by changes in minish numbers, meaning a conformational change of the protein, were transmised into a optical signal obsd. directly as a colin change of a more pointage. We have consecutably material terms as then filled to be a more properly reflecting of the material and a transmission of the material resolutions at the protein active pent, and the material resolution of medial name violation on the protein as The required the material proteins. The required and the material resolution of the spectrum. Thus set-up enabled on to transmisse a manual right tein conformation is various serum proteins and engineer into a serum at the human eye.

3179-76-8 minischurronment, meaning a conformational change of the protein, were

3179-76-8

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Me Si (CH2)3 NH

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REFERENCE COUNT: 6 THERE ARE 6 CITED REFERENCES AVAILABLE FOR THIS RECORD, ALL CITATIONS AVAILABLE IN THE RE FORMAT

L45 ANSWER 21 OF 41 CAPLUS COPYRIGHT 2002 ACS

ACCESSION NUMBER: 2000:384565 CAPLUS

DOCUMENT NUMBER:

133:25236

TITLE:

Methods and compositions for performing an array of

shemical reactions on a support surface Zebala, John A.

INVENTOR(S):

FATENT ASSIGNEF(S):

SOURCE:

Syntrix Biochip, Inc., USA FCT Int. Appl., 157 pp.

CODEN: PIXXD2

DOCUMENT TYPE:

Patent

LANGUAGE:

English

FAMILY ACC. NUM. COUNT: 4

PATENT INFORMATION:

| W⊝ | 2000 | 030084 | | Žs. | _ | 20000608 | | | W. | 0 14 | 499-US28021 | | | 1999 | | | |
|-------------|-------|----------------|---------|-------|--------|----------|------|------|-------|------------|-------------|-------|------------|--------|---------|-----|-----|
| $W \ominus$ | 2000 | 00030084 | | A3 | | 20000810 | | | | | | | | | | | |
| | W: | Al, | AF, AL, | AM, | AT, | ΑU, | AZ, | BA, | BB, | BG, | BR, | BY, | CA, | CH, | CN, | CR, | CU |
| | | CC, | DE, | DK, | DM, | EΞ, | ES, | FI, | GB, | GD, | GE, | GH, | GM, | HR, | HU, | ID, | I |
| | | 111. | IS, | JF, | KE, | KG, | KP, | KK, | KΖ, | LC, | LK, | LR, | LS, | LT, | LU, | LV, | M |
| | | М | MG, | мĸ, | MN, | MW, | MX, | NO, | ΝZ, | PL, | PT, | RO, | RU, | SD, | SE, | SG, | S |
| | | SE. | SL, | IJ, | TM, | TR, | TT, | 72, | UΑ, | UG, | US, | UZ, | VN, | YU, | ZA, | ZW, | ΑÌ |
| | | | | • | | MD, | | | | | | | • | | · | | |
| | EW: | GH, | GM, | KE, | LS, | MW, | SL. | SL, | 52, | Т2, | UG, | ZW, | AT, | BE, | CH, | CY, | Ι. |
| | | DE. | ES, | FΙ, | FR, | GB, | GR, | 1E, | IT, | ЪŪ, | MC, | NL, | PT, | SE, | BF, | ВJ, | (' |
| | | CG, | CI, | CM, | GA, | GN, | GW, | MI., | MR, | NE, | ΠN, | TD, | ТG | • | • | | |
| ΕI | 1165 | 374 | | Ā | 4. | 2001 | 1219 | | Ε | 19 | 49-9 | 6181 | 1 4 | 1999 | 1123 | | |
| | R: | KU_{\bullet} | BE, | ΞĦ, | ΞE, | ĽK, | ES, | FF, | GE, | Sir., | / | , | LU, | ML, | SE, | ы., | E |
| | | IE, | .:1, | LT, | 135, | FI, | - | | | | | | | | | | |
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| | 114-: | | | | | | | | | | | | | | | | |

assays. Liband-arrays may comprise, for example, nucleobase polymers that are resistant to desiradative enzymes. INA probes and enalaprilat analysis were synthesized in that slider wint apply resist method and used in Byiridiration as as said A.W. Indicitory of sorty one number

71-30-7, Cytosine 73-40-5, Guanine

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11H2
FN: 73-4: -F CAPLUS
    6H-Furin-6-one, 2-amino-1,7-dihydro- (9CI) (CA INDEX NAME)
H/\Pi
          Ν.
    N
             NE
    273752-55-9DP, immobilized 273752-56-0DP,
     immobilized 273752-57-1DP, immobilized
     273752-58-2DP, immobilized 273752-59-3DP,
     immobilized 273752-60-6DP, immobilized
     273752-61-7DP, immobilized 273752-62-8DP,
     immobilized 273752-63-9DP, immobilized
     RL: DEV (Device component use); FEP (Physical, engineering or chemical
     process); RCT (Reactant); SPN (Synthetic preparation); PREP (Freparation);
     PROC (Process); RACT (Reactant or reagent); USES (Uses)
        spreph. and detachment of; methods and comphs. for performing arrays of
        chem. reactions on support surfaces using photoresists)
     273752-55-9 CAPLUS
R\Pi
     L-Proline, N-[(1S)-1-carboxy-2-phenylethyl]-L-alanyl-,
CM
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 $2-\{1,1-dimethyl-3-\{4-[2-exo-2-[[3-(triethoxysilyl)propyl]amino]ethoxy]phen$

Absolute stereochemistry.

yl)propyl; ester (901) (CA INDEX NAME)

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FAGE 1-E

Et.O

OEt

Si

()Et

RN 273752-56-0 CAPLUS

CN L-Profine, N-[(13)-1-carboxy-2-(2-nitrophenyl)ethyl]-L-alanyl-, 2-[1,1-dimethyl->-[4-[2-oxo-2-[[3-(triethoxysilyl)propyl]amino]ethoxy]phen yl]propyl] ester (901) (CA INDEX NAME)

Absolute stereochemistry.

PAGE 1-A

CC2H Me

S m S O Me Me

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(CA INCEN NAME)

Absolute stereochemistry.

CO2H ¶ $\varepsilon_{\rm NH}$ $\mathbf{H} = \mathbf{C}$ Me S O Me Me Ν 5 ()

PAGE 1-A

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PAGE 1-B

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PAGE 1-A

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PAGE 1-B

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Si
(CH2)3 OEt

RN 273752-59-3 CAPLUS

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273052-60-6 CAPLUS
L-F1-1/ine, N2-[(18)-1,3-dicarboxypropyl]-N-(triphenylmethyl)-L-asparaginylL-F1-1/ine, N2-[(18)-1,3-dicarboxypropyl]-N-(triphenylmethyl)-L-asparaginylL-Asparaginyl (CH2) 3

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РАGE 1-A
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PAGE 1-B

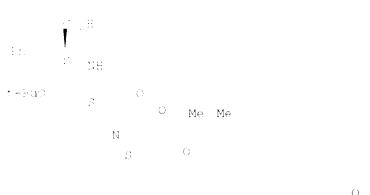
EtO
OEt
Si
(CH2)3 OE1

RN 273752-61-7 CAPLUS

CN L=Proline, N=[(l:2=l= tarkexy=2=phenylethyl]=t=(1,1=dimethylethyl=l=renylethyl=l=l:1,1=dimethylet==4=[.=<math>x=.=[] tarketh xycloy. pa pyl[amin=+th-xylethyl] repyl==t=0 W=1MH-EM-HAME.

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PAGE 1-F

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Page 1.

FAGE 1-B

EtO OEt
Si
(CH2)3 OEt

RN 273752-63-9 CAFLUS

CN L-Proline, N-[(13)-1,3-dicarboxypropyl]-O-(1,1-dimethylethyl)-L-seryl-, 2-[1,1-dimethyl-3-[4-[2-oxo-2-[[3-(triethoxysilyl)propyl]amino)ethoxy]pher. yl]propyl] ester (9CI) (CA INDEX NAME)

Absolute stereochemistry.

HO2C S NH

t-BuO S NE

N

HO2C NH

H

N

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PAGE 1-F

Et(OEt S : (CH2)3 OEt

L4" ANSWER 22 OF 41 CAPLUS COPYRIGHT 2002 ACS

ACCESSION NUMBER: 2000:54038 CAPLUS

DO TUMENT NUMBER:

TITLE:

INVENTOR(S):

132:90351

Photoluminescent semiconductor materials

INVENTOR(S): Armstrong, David W.; Lafrance, Martine L.
PATENT ASSIGNEE(S): Latroquest Corporation, Can.
SOURCE: PCT Int. Appl., 37 pp.

CODEN: PIXXD2

DOCUMENT TYPE:

LANGUAGE:

Patent English

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

| | PA: | KI | ND | DATE | | | A | PPLI | CATI | DATE | | | | | | | | |
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| | WC 2000003230 | | | A1 20000120 | | | | WO 1999-CA642 | | | | | | 19990709 | | | | |
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919-30-2DP, .gamma.-Aminopropyltriethoxysilane, reaction products
ΙT
     with exidized perous silicon and recognition moieties 2530-83-8DP
     , 3-Glycidoxypropyltrimethoxysilane, reaction products with oxidized
     porous silicon and recognition moieties
     RL: ARG (Analytical reagent use); SPN (Synthetic preparation); ANST
     (Analytical study); PREP (Freparation); USES (Uses)
        (photoluminescent indicators based on surface-modified porous
        semiconductors:
     919-31-2 CAFLUS
F.N
     1-Propanamine, 3-(triethoxysily1)- (3CI) (CA INDEX MAME)
CN
     OEt
EtO Si (CH2)3 NH2
     OEt
     2530-33-8 CAPLUS
FN
CN
     Silane, trimethoxy[3-(oxiranylmethoxy)propyl]- (901) (A INDEX NAME)
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                    OMe
     CH2 C (CH2)3 Si OMe
                    CM∈
REFERENCE COUNT:
                              THERE ARE 6 CITED REFERENCES AVAILABLE FOR THIS
                        6
                               RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT
L45 ANSWER 23 OF 41 CAPLUS COPYRIGHT 2002 ACS
                       1999:723221 CAPLUS
ACCESSION NUMBER:
DOCUMENT NUMBER:
                         131:332971
TITLE:
                         Chemically modified nucleic acids having enhanced
                         lability towards solid supports,
                         and uses thereof in high-density microarrays
                         Bradley, Allan; Cai, Wei Wen
INVENTOR(S):
PATENT ASSIGNEE [9]:
                         Paylor College of Medicine, USA
SOURCE:
                         FOT Int. Appl., to pp.
                         oviku: Likkiv
DOMINENT TYPE:
                         3 .41 +4111
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FAMILY ATT. 1000. TEATERN INFORMATIONS
                                      APPLICATION NO. DATE
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     Will AMERICAN
                            19991111
                                         : : [1994=11194]) : [1944(F8]
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OTHER SOURCE(S):
                         MARPAT 131:332971
    The invention relates to movel chem. modified nucleic acids with enhanced
     lability towards solid supports, such as glass. These modified nucleic
     acids can be readily affixed to solid supports, for instance, a glass
     surrace, without first derivatizing the glass surrace. In certain
     embodiments, the chem. modified nucleic acids of the invention are so
     modified via (1) compds. having a ring ether and an alkoxysilane group,
     (2) or my ds. having an amino or our and an alkowysilane group, (3)
     hal denoted silanes, or (4) amine-contq. silanes reacted with brominated
     nucleis anids. High-d. microarrays based on these modified nucleis anids
     as well as methods for prepg. these microarrays are also useful.
     919-30-2DP, 3-Aminopropyltriethoxysilane, bound to a nucleic acid
     2530-83-8DP, 3-Glycidoxypropyltrimethoxysilane, bound to a nucleic
     RL: AKG (Analytical reagent use); BPN (Biosynthetic preparation);
     ANST (Analytical study); BIOL (Biological study); FREP
     (Preparation); USES (Uses)
         chem. modified nucleic acids having enhanced lability towards
        solid supports, and uses thereof in high d.
        microarrays)
КП
     919-30-2 CAPLUS
     1-Propanamine, 3-(trietnoxysily1)- (9CI) (CA INDEX NAME)
     OEt
    Si (CHp) - NHp
     OEt
RN
     2530-83-8 CAPLUS
711
     Silane, trimethoxy[3-(oxiranylmethoxy)propyl]- (9CI) (CA INDEX NAME)
                     OMe
     CHy : (CHy) k Si OMe
                     ाe
     71-30-7, Cytosine
     For Both Birth divalor thereone (a BAM (Berlin en la laterity, en el alerte e a
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       om afflet no dein å did somproden; dien om afte betoe betoe na naving
enhans bold illty towards solid supports, and ones
    there to an high-d. microarrays 
NI---- WHANK
    J. IH -Pyrimidin i., 4-amino- . 61 JOA INDEX NAME
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unclassified); ANST (Analytical study); BIOL (Biological study);
     USES (Uses)
        (use in modifying nucleic acids; chem. modified nucleic acids having
        enhanced lability towards solid supports, and uses
        thereof in high-d. microarrays)
     1591-21-5 CAPLUL
RN
     Silane, dichloro(4-chlorobutyl)methyl- (7C1, 8C1, 9C1) (CA INDEX NAME)
CM
   C1
Me Si (CH2)4 Cl
   C1
    14867-28-8 CAPLUS
FΝ
     Silane, (3-iodopropyl)trimethoxy- (7CI, 8CI, 9CI) (CA INDEX NAME)
CN
     ОМе
MeO Si (CH2)3 I
     OMe
     70892-80-7 CAPLUS
EΝ
     Silane, (8-bromooctyl)trichlore- (9CI) (CA INDEX NAME)
   C1
Cl Si (CH2)8 Br
   C1
   82935-34-0 TAFLUG
EN
     Silane, (8-bromooctyl)trimethoxy- (901: (CA INDEX NAME)
CN
     1.1.
                                THERE ARE SOUTH REFERENCES AVAILABLE FOR THIS RESORDED. AND STRATIONS AVAILABLE IN THE RESPONDAN
REFFRENCE COUNT:
145 ANAMER 14 00 41 MEDIUS SERVET HET LOC AUS
ASSESSION NUMBER: Locality of the MEDIUS
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FAMILY ACC. NUM. COUNT: 1 FATENT INFORMATION:

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APPLICATION NO. DATE
     FATENT NO.
                        KIND
                               DATE
                        A1 19991014 WO 1999-007203 19990331
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     We ---- 1773
          W: AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CU, CZ, DE,
              DK, EE, ES, F1, GB, GD, GE, GH, GM, HR, HU, 1D, IL, IN, 1S, JP,
              KE, KG, KF, KR, KZ, LC, LK, LE, LS, LT, LU, LV, MD, MG, MK, MN,
              MW, MM, NO, NZ, PL, PT, RC, RU, CD, SE, SS, SI, SK, EL, TJ, TM, TR, TT, NA, UG, UZ, VN, YU, SA, SW, AM, A2, BY, KG, EZ, MD, RU,
              TO, TH
          RW: GH, GM, KE, LS, MW, SP, SL, S2, UG, ZW, AT, BE, CH, 'Y, DE, DK,
              ES, FI, FK, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG
                                          CA 1999-2323638 19990331
                         AA 19991014
     CA 23, 363%
                             19991025
20010117
                                          AU 1999-34636 19990:31
EP 1999-916333 19990331
     AU 4944636
                         A1
     FF 1068356
                         Α1
          H: AT, BE, CH, DE, DF, ES, FR. GB, GR, IT, LT. LU. NO. SE, MC, PT,
              IE, FI
     JF 2002510505
                        T2 20020409
                                                JP 2000-542484 13990331
                                             US 1998-80686P P 19980403
WO 1999-US7203 W 1999033:
PRIORITY APPLN. INFO.:
```

Disclosed herein are arrays of nucleic acid-protein fusions which are Air immobilized to a solid surface through capture probes which include a non-nucleosidic spacer group and an oligonucleotide sequence to which the fusion (such as an RNA-protein fusion) is bound. RNA-protein fusions are synthesized by in vitro translation of mRNA pools contg. a peptide acceptor such as puromycin attached to their 3'-ends, such that a covalent amid bond forms between the 3'-end of the mRNA and the C-terminus of the protein which it encodes. The arrays are prepd. by fixing oligonucleotide sequences, the capture probes, to a support in a defined array; the capture probes are then used to bind nucleic acid-protein fusions through base pairing between the nucleic acid component of the fusion and a complementary capture probe. The result of the binding interactions between the fusions and the capture probes is a defined, addressable array of proteins attached to a solid support. Also disclosed herein are solid supports on which these arrays are immobilized as well as methods for their prepn. and use (for example, for screening for protein-compd. interactions such as protein-therapeutic compd. interactions). Exemplary fusion chips are denerated for FLAG, HALL, and d-Myd epitope fusions.

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Fig. 180 (190) which is appropriate the diffusion and 10 BAST Section to a space of γ . Then

carried able protein arrays in solid supports wind

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Repartment of Microbiology, Arizona Stat- University,

Tempe, A2, 85287-2701, USA

SCURCE:

Biophysical Journal (1999), 77(1), 568-576

CODEN: BIOJAU; ISSN: 0006-3495

FUBLISHER:

Biophysical Society

LOTUMENT TYPE: LANGUAGE:

Journal English

A procedure for sevalent binding of DNA to a functionalized mica substrate is de, miked. The approach is based on photochem, prosslinking if DNA to immobilized proralen derivs. A tetratluorphenyl (TFF) ester of tri-Me pscraler (triexaler) was synthesized, and the procedure to immebilize it onto a functionalized aminopropyl mida surface (AP-mida) was developed. TNA mais, were pross-linked to trioxalen modeties by UV irradn. of complexes. The steps of the sample prepn, procedure were analyzed with XFS (XFS). Results from XPS show that an AP-mica surface can be formed by varor phase deposition of silane and that this surface can be derivatized with trioxaler. The derivatized surface is capable of binding of DNA mols, such that, after UV crosslinking, they withstand a thorough rinsing with SPS. Observations with at. force microscopy showed that derivatized surfaces remain smooth, so DNA mols. are easily visualized. Linear and circular DNA mols, were photochem, immobilized on the surface. The mols, are distributed over the surface uniformly, indicating rather even

medification of AP-mica with trioxalen. Generally, the shapes of super-moiled mols, electrostatically immobilized on AP-mica and those photograss-linked on trioxalen-functionalized surfaces remain quite similar. This suggests that UV crosslinking does not induce formation of

a noticeable no. of single-stranded breaks in DNA mols. 919-30-2

RL: ARU (Analytical role, unclassified); ANST (Analytical study) unica surface coated with,; imaging of DNA by at. force microscopy based on covalent photochem. crosslinking of DNA to trioxalen

immobilized onto mica surface)

919-30-2 CAPLUS RN

1-Fropanamine, 3-[triethoxysilyl)- (901) (CA INDEX NAME)

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Moved methods of attaching probes to a colliderapy but

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For . Lat. Appl., 40 pp.

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EP 895082
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        R: AT, BE, CH, DE, PK, ES, FR, SH, GR, IT, LI, LU, NL, SE, MC, FT,
             IE, SI, LT, LV, FI, KO
     JE 11187900 A: 1999011+
JE 2001066305 AL 2 010010
                                           T 1495-209725 19986724
     JF 2001066305
                                           TE 2000-2322 % 19980724
                                         Ti 1997-207837 A 19970801
PRICRITY APPLN. INFO.:
                                         JF 1998-209923 A 19980724
OTHER SOURCE(S): MARFAI 1:0:140140
     Provided is a method of attaching probes to a solid support in a markedly
     high d. and efficiency. An extremely small amt. of probe is contained
     within a liq., and droplets of the liq. are delivered to the solid support
     via an ink jet ejection method, thereby forming spots which centain the
     probe. Since one or more substances can bind specifically to target
     probes and said probes are arranged in a large no. on a solid support, the
     method can be used to swiftly and accurately det. A base sequence of \epsilon
     nucleic acid or detect a target nucleic acid in a sample.
     1760-24-3, KBM603 2530-83-8, KBM403
TT
     RL: RCT (Reactant); RACT (Reactant or reagent)
        shovel methods of attaching probes to a solid support
        and uses theresi,
     17:00-24-3 CAPLUS
F.N
     1,2-Ethanediamine, N-(3-(trimethoxysily1)) repyl)- (9CI) (CA INDEX NAME)
CN
     OMe
MeO Si (CH2)3 NH CH2 CH2 NH2
     ОМе
E.N
     2530-83-8 CAPLUS
     Silane, trimethoxy[S-(oxiranylmethoxy'propyl]- (901) (CA INDEX NAME)
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Rapidene, Inc., TVA
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INVENTOR, C:
PATENT ASSIGNEE OF :
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BW: GH, GM, KE, LS, MW, SD, SZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FK, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG
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          B: AI, BE, CH, DE, PK, EB, FR, GB, UE, IT, LI, LB, NL, CE, MI, ET,
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                                                 US 1498-120386 19980721
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     JF 2000-503953 19980721
                               2001030
PRIORITY APPLIA, INFO.:
                                             US 1997-53352P P 19970722
                                             WO 1998-US15246 W 19980721
     An array of biomols, is formed from a flat solid substrate, whereby said
\Lambda E
     surface is covered with a layer of polyethylenimine (PEI) and this layer
     is divided among a plurality of discrete first regions abutted and
     surrounded by a contiguous second region. The process includes the step
     of depositing a biomol. into the first regions while maintaining the
     second region substantially free of the biomol.
     2530-83-8, β-(2,β-Epoxypropoxy)propyltrimethoxysilane
     RL: AK' (Analytical role, unclassified); RCT (Reactant); ANST
      (Analytical study); RACT (Reactant or reagent)
          use as birunctional coupling agent; novel polyethylenimine-based
         biomol. arrays)
     2530-83-8 CAPLUS
RN
111
     Silane, trimethoxy[3-(oxiranylmethoxy)propyl]- (9CI) (CA INDEX NAME)
                       OMe
     CH2 (CH2)3 Si CMe
                       -0Me
FEFERENCE TOWNS:
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                                   THERE ARE 9 CITED REFERENCES AVAILABLE FOR THIS
                                   RECORD. ALL CITATION: AVAILABLE IN THE RE FORMAT
L45 ANSWER 1.9 OF 41 CAPLUS CONTRIGHT 2002 AND
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glass slides RL: ARU (Analytical role, unclassified); DEV (Device component use); SEN (Synthetic preparation); ANST (Analytical study); PREF (Freparation); USES (Uses) (covalent attachment of hybridinable olidenucleotides to glass supports) 919-30-2 CAPLUN RE 1-Froganamine, 3-(triethoxysilyi) = 19 % - (CA INDEX NAME) CN

OEt.

EtO Si (CH2)3 NH2

OEt

L45 ANSWEE 30 OF 41 CAPLUS COPYRIGHT 2002 ACS

ACCESSION NUMBER: 1996:657014 CAPLUS

DOCUMENT NUMBER:

126:26153

TITLE:

Carbazine dyes and derivatives for pH measurement

INVENTOR (F: Smith, Roger E.

PATENT ASSIGNEE(S):

Whah Medical Products, Inc., USA

SOURCE:

: F :

U.S., 23 pp. CODEN: USXXAM

DOCUMENT TYPE:

Patent

LANGUAGE:

English

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

| | 55676 | | | | | | | | | | | | | | | | |
|-----|--------------|-----|-----|-------|------|----------|--------------------------|-----|-------------------------|-----|-----|-----|-----|-----|-----|-----|-----|
| CA | A 221911" AA | | i. | 1996. | 1031 | | CA 1996-2219117 1996042) | | | | | | | | | | |
| WО | 9634284 | | | A1 | | 19961031 | | | WO 1996-US5777 19960426 | | | | | | | | |
| | W: | AL, | AM, | ΑT, | AU, | AΖ, | BB, | BG, | BR, | ΒY, | CA, | CH, | CN, | CZ, | DE, | DK, | EE, |
| | | ES, | F1, | ₽Đ, | GΕ, | HU, | IS, | JF, | KE, | KG, | KŁ, | KR, | KΖ, | LK, | LR, | 13, | LT |
| | | | | | | MK, | | | | | | | | | | | |
| | | SG, | SI | | | | | | | | | | | | | | |
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2530-83-8 CAPLUS
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11. Silane, trimethoxy[3-(oxiranylmethoxy)propyl]- (9CI) (CA INDEX NAME)

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1.4: ANSWER 31 OF 41 CAPLUS COPYRIGHT 2002 ACC

ASSECTION NUMBER:

1992:401921 CAPLUS

CHIMENT NUMBER:

117:1321

T.T.E.:

Oligonucleotide hybridizations on glass supports: a novel linker for oligonucleotide synthesis and

hybridization properties of oligonucleotides

synthesized in situ

AUTHOR (S):

Maskos, Uwe; Southern, Edwin M.

TOREORATE COURCE:

Dep. Biochem., Univ. Oxford, Oxford, OX1 3QU, UK

Nucleic Acids Res. (1992), 20(7), 1679-84

CODEN: NARHAD; ISSN: 4305-1048

DOWNERT TYPE:

Journal Er.qlish

LANGUAGE:

SKITESE:

A novel linker for the synthesis of oligonucleotides on a glass support is described. Oligonucleotides synthesized on the support remain tethered to the support after ammonia treatment and are shown to take part in sequence-specific hybridization reactions. These hybridizations were carried out with oligonucleotides synthesized on ballotini solid sphere glass beads and microscope slides. The linker has a hexaethylene glycol spacer, bound to the class via a glycidoxypropyl silane, terminating in a primary hydroxyl group that serves as starting point for automated or manual oligonucleotide synthesis.

2530-83-8

KI: UCES (Usen)

glass support immobilization of, reaction with diols after, for synthesis of solid support-bound linker for

olischerbide synthesis) 2530-53-8 CAFBUR

Cilan=, trimethoxy[3=(oxiranylmethoxy)propyl]= (9CI) (CA INDEX NAME)

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116:20010.

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English
LANGUAGE:
             A new type of HFLC stationary phase contg. thymine deriv. was successfully
             prepd. It was found to give selective sepn, of nucleic acid bases and
             several purine derivs., such as caffeine and theophylline. The retention
             behavior and elution order or the solutes were interpreted in terms of
             mol. structure.
             919-30-2DP, reaction products with silica del and subsequently
ΙT
             with thymineyly: originic acid-hydroxynorhornenedicarkoximide reaction
             product
             RL: 3PN (Synthetic: reparation); ANST (Analytical study); FREF
              (Preparation)
                     (preph. and use of, as statishary phase for seph. of nucleic acid
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RN
             919-30-2 CAPLUS
CN
             1-Propanamine, 3-(triethoxysily1) - (9CI) (CA INDEX NAME)
              OEt
Eto Si (CH2)3 NH2
             OEt
             73-40-5, Guanine
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             RL: ANST (Analytical study)
                     (sepn. of, from nucleic acid bases by HPLC on thymine bonded silica
                     gel)
             73-40-5 CAPLUS
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              6H-Parin-6-ene, 2-amino-1,3-dihydro- (9CI) (CA INDEX NAME)
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                                                                                                                  B1 19971014
         Chromatog. materials (SBX, SBXYL, and SBXY' [S = substantially]
ДH
         nem.cm_{\phi} ressible solid support; B * binding group; X = substantially
         nomicalic hydrophilic spacer; Y = coupling group; Y' = activated coupling
         group; L = affinity ligand] are provided. The sold support is silica gel
         or other metal oxide or ceramic. A process for chromatog, seph. and
          detection of .gtoreq.1 substance with the title material is also provided.
          The chromatog, material is substantially free of nonspecific adsorption
         and is stable at high pH. PEG 600-propylsilism (46 .mu.m) was prepd. and
         activated with carbonyldiimidazole. The activated silica gel was reacted
         1st with hydrazine, then with periodate-oxidized ovalbumin, and packed
          into : HFLC column.. Serum from a rabbit immunized against ovalbumin was
          loaded onto the column. Following removal of nonbound serum components by
          washing, IgG was eluted with 2% HOAc contg. 0.15M NaCl. Identify of the
          eluted, purified IqG was confirmed by SDS-FAGE and Western blot anal.
          13883-39-1D, reaction products with silica gel
          RL: ANST (Analytical study)
                (in preph. of stationary phase for affinity chromatog., pH stability in
                relation to)
RN
          13883-39-1 CAPLUS
          Silane, (3-bromopropyl)trichlore- (6CI, 8CI, 9CI) (CA INDEX NAME)
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DD 256720 Al 19880518 DD 1986-286583 19860129 OTHER SCURCE(S): MARPAT 110:208929 A process for the manuf. of chem. activated hydroxyethyl methacrylate-ethylene glycol dimethacrylate copolymer (I) in the form of shaped objects comprises the treatment of I with organosilanes (XRIm)nSiR4-n (X + amino, CO, COL, isothiocyano, epoxy, diazo, NCO, MO,sulfhydryl, halomarbonyl; kl = alkyl, alkylphenyl, Ph; R = alkoxy, phenoxy, halo, m = 0-20, n = 1-3) and optionally with hetero- or homofunctional respents. Macroposous I (Separon Hema-1000; particle size 15-25 .mu.m.; inno: surface TO m2 g; mol. wt. exclusion 2 .times. 1)6 $^{\circ}$ g) was incubated with 10. aminopropyltriethoxysilane (NB 1114) in 1:1 EtOH-H2O at pH 2.5 for 6 h at 60.degree., washed with EtOH-H2O and 0.1M phosphate buffer at pH 6.8, and the resulting gel was incubated with 5glutardialdehyde for 2 m at 39.degree, and subsequently washed with phosphate buffer. The activated gel was incubated with human 196 (18.0 mm IgG/mL 0.1M phosphate buffer) for 2 h at 37.degree. and overnight at 4.degree.; 36.7 mg IgG/g (>95%) were bound on activated I. 919-30-2DP, reaction products with Separon HEMA and glutaraldehyde 2602-34-8DP, reaction products with Separon HEMA and (amincpropyl)triethoxysilane and glutaraldehyde RL: PREP (Preparation) (manuf. of, as solid support for affinity chromatou.) EN919-30-2 CAPLUS CN1-Propanamine, 3-(triethoxysily1)- (9CI) (CA INDEX NAME) OEt EtO Si (CH2)3 NH2 OEt RN2602-34-8 CAPLUS CN \odot o) it $CH_{\mathbb{Z}}$ O ($CH_{\mathbb{Z}} \cap \mathbb{R}$ \mathbb{Z}^{\perp} CEt 141 ANOMER ROLE 41 MENOD PLAYED BUILD A DE AMARIAN SANTAN S ATRIBLE DEWEEFT DOUMENT DUMBER: 11:11 TITLE: Modification of cilcuming late collists well by sminsnowput of amount propyltriethorysilane and their specific Segment in a district in a different solution of the second sector of the second sector of the second sector of the second sector of the secto ACTE FOR E THE FATE OF THEFE

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ii these plates (for sugars, quanosine, and its phosphates) is not
     intriin when compares with Merck com. plates NHL-F254. Ribenucleotides,
     decomplibehouslebtides and impurities of nucleoside N bases and their
     phosphates were sepd. by a mobile phase contq. AcOH and EtOH.
     73-40-5, Guanine 73-40-5D, Guanine,
     nucleatides
     EL: All'I (Analytical study)
        sept. of, by TLC, aminopropyltrimethexysilane-modified silica gel for)
     7 s-quality CAPLUS
SII
     EH-lunin-r-one, d-amino-1,7-dihydro- (901) CA INDEX NAME)
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      ( )
     73-4: -5 CAPLUS
     6H-Funin-6-one, Z-amino-1,7-dihydro- (9C1) (CA INDEX NAME)
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           NH
     919-30-2, Aminopropyltriethoxysilane
     FI: ANST (Analytical study)
        usilie: gel-modified with, for nucleic acid component sept., by TLC)
     919-36-2 CAPLUS
RH
     1-Department, 2- trieth xysilyl - (901) - WAINLEX NAME
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                           11.:1-0
                           Approximation of the magnetic constraints of magnetic process of the magnetic form of the magnetic field (n,n)
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characterized by chromatog, and spectroscopic techniques. These new
bonded phases are significantly more stable toward hydrolysis than
previous bonded-phase silicas; retention and column efficiency are
comparable. The first type uses bifunctional (or "bidentate") silanes
contg. one reactive atom on each of two silidon atoms that connect through
a bridging group such as -0- or -(CH2)n-. The second type uses a
monofunctional rilane with at least two bulky groups (e.g., isotropyl on
the silane silican atom. These bulky arough provide sterio protection to
the Si-O-Si bond formed between the silane and the surface of the silica.
The new bonded-phase silicas exhibit highly reproducible gradient educion
high-performance sephs. of politides and proteins with low-pH mobile
116698-58-9DP, reaction products with silica gels
117559-36-1DP, reaction products with silica gels
RL: ANST (Analytical study); PREP (Preparation)
   (prepn. and characterization and evaluation of, as stationary phases in
   HPLC for anal. with low-pH mobile phases)
116698-58-9 CAPLUS
Silane, ethoxybis(1-methylethyl)[3-(oxiranylmethoxy)propyl]- (9CI) (CA
INDEX NAME)
               OEt
CH2 O (CH2)3 Si Pr-i
             i - Pr
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RN 117559+36+1 CAFLUS

CN 1-Propanamine, 3-{ethoxybis:1-methylethyl/silyij- (901) (CA INDEX NAME)

OEt

i-Pr Si (CH2)3 NH2

i-Pr

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RN CN

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14" ANSWER 37 OF 41 MALIDO INTERSET 15 41 AND ACTEONION NUMBER: DOMEST NUMBER: Most invaried term magnetic connection of ${\bf x}_1, {\bf x}_2, {\bf x}_3$ and anticode. : : solid support ::. heter reneral immuniazzaya ana ki affinity separati na INVENTOR, S.: Law, How Ferns Endligg, Yand, Estimat Roop, Cathlein, Elwar I Wayiz FATENT ASSIGNEE C : in Ent to be New Year, E. I., and J., USA SOURCE: Eur. Fat. Appl., 19 pp. Earth. "MENT THEF:

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                                                                19860318
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     Cro. particles are modified to have desirable characteristics as solid
     support materials for immunoassays or for bloaffinity sepas. The
     particles are surface reduced and coated with protective silica and silan-
     layers. Such treatment prevents hydrolytic degrdn, of the particles, and
     provides a functionalized doat. CrO2 particles were surface reduced in an
     44. 8 dr. of NaHSO3, then treated with NaAlO2 and Na2SiO3 soln. contg. Na
     herete, pH :. The particles were coated with 3-
     aming repyltriethoxysilane. The chromate leaching test of these particles dave an absorbance of 0.02at 372 nm. The particle settling time was 8 min. In an immunoassay for the detn. of TSH, a serum sample was mixed
     with an enzyme-labeled anti-TSH .beta.-subunit monoclonal antibody (MAb),
     then mixed with a slurry of particles carrying anti-TSH .alpha.-subunit
     MAbs. The immune complexes formed were removed magnetically. The
     complexes were resuspended in a substrate soln, and incubated, the
     absorbance of the quenched soln, was read. Human serum conty. (, 5, 25,
     and % .mu.IU TSH/mL gave an absorbance of 0.1184, 0.1829, 0.4884, and
     0.794 , resp.
     919-30-2, 3-Aminopropyltriethoxysilane 5089-72-5
     RL: ANST (Analytical study)
        courface-reduced magnetic chromium dioxide particles coated with silica
        ani, for immunoassays and bioaffinity sepns.)
KN
     919-30-2 CAPLUS
     1-Propanamine, 3-(triethoxysily1)- (9CI) (CA INDEX NAME)
     OEt
Etc Si (CH2) > NH2
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F.,
     Primar 1 = P AFTUE
     1,u=Ethanediamine, N=[3+(triethoxysilyl)prayl]= (901) (CA INDEX NAME)
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DOCUMENT TYPE:

Fatent English

LANGUAGE:

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

| FATENT NO. | KIMD | DATE | APPLICATION NO. | DATE | |
|---|-------------------------|----------|--|--|--|
| | | | EF 1957-510174 | 19870433 | |
| WO 3706916 W: AU, BR, | F. 1 | 19871114 | WO 1957-EP234 | 19870502 | |
| AU 3775836 JP 01500321 FI 8705770 NO 8600010 DK 8800006 | A1 T2 A A A | 19871201 | AU 1987-75838 JF 1987-503871 FI 1987-5770 NO 1988-10 DK 1988-6 | 19870502 19870502 19871230 19880104 19880104 | |
| PRIORITY APPLM. INFO | .: | | EP 1986-810201 Wo 1987-EP234 | 19360505 19370502 | |

AB A waveguide coated with single-stranded probe nucleic acids and carrying an internally reflected wave signal is contacted with an analyte soin. contg. denatured test DNA or RNA and iluorescent marker dye. Analytenucleic acid with sequences homologous to that of the probe polynucleotide will hybridize therewith with concemitant binding of the fluorescent dye to the resultant duplex structures. Fluorescence resulting from the interaction of the wave signal at the waveguide/analyte interface with the signal generating centers created within the space probed by the evanescent component of the wave signal is detected and provides useful information on said sequences homologous to that of the probe nucleic acids. A plate waveguide with poly(dA) affixed (prepn. described for oligo dC on aminopropyl glass plate) was affixed into a flow cell and a base-line signal was obtained with buffer in the cell. Both ethicium. bromide and poly-det were mixed and injected into the flow cell and the reaction was monitored. In a control, only ethidium bromide was added. The monitoring reaction was effectively immediate and only specific intercalation between double-stranded DNA was detected.

1T 919-30-2, 3-Aminopropyltriethoxysilane

RL: ANST (Analytical study)

 (grafting of, on waveguide, for nucleic acid attachment, nucleic acid detn. in relation to)

RN 919-30-2 CAPLUS

CN 1-Propanamine, 5-(triethoxysilyl)- (9C1) (CA INDEX NAME)

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DOMMENT TYPE:
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            Machagerous class treated with .gamma.-aminopropyltriethyoxysilane and
              them with 1:1 copolymer of N-vinylpyrrolidone and a ryloyl chloride was
              prepd. and used for sepn. of influenza, Sendai, etc. viruses. The sorbent
              possesses low absorption activity but had higher stability and better
              hydroxynamic properties than commonly used scribents (Sepharose 46, porous
              class. The corbent can be used repeatedly without regeneration (830)
              times: and sould be regenerated by washing with 1:1 iso-FrOH-H2O, when the
               ohr mateq. properties are totally restored. The inert serbent was also
              used tor the seph. of Escherichia coli tRNA from To S ribusomer.
              919-30-2, .gamma.-Amiropropyltriethoxysilane
              RL: ANST (Analytical study)
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                       support prepn.)
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              919-30-2 CAPLUS
              1-Propanamine, 3-(triethoxysilyl)- (9CI) (CA INDEX NAME)
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              ANSWER 40 OF 41 CAPLUS COPYRIGHT 2002 ACS
ANTESSICU NUMBER:
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LECTIMENT NUMBER:
                                                                         103:31015
TITLE:
                                                                         Alkoxy silanes for the preparation of silica based
                                                                         stationary phases with bonded polar functional groups
APTHORAS :
                                                                          Engelhardt, Heinz; Orth., Peter
CORPORATE LOUR TE:
                                                                          Angew. Phys. Chem., Univ. Saarlandes, Saarbruecken,
                                                                          Fed. Rep. Ger.
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               catalyst are required to achieve surface coverages comparable to those
              ortained with chierosilanes. For activation a monolayer of Histon the
              will as we have in wift Heat. The meet artire catalyst on many cares has
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ΙT
     919-30-2D, 3-Aminogropyltriethoxysilane, reaction products with
     silica
     RL: ARU (Analytical role, unclassified); ANST (Analytical study)
         (as stationary phases, for liq. chromatog.)
RN
     919-30-2 CAPLUS
     1-Propanamine, 3-(triethoxysily1)- (901) (CA INDEX NAME)
CN
     OEt
EtO Si (CH2)3 NH2
     OEt
ΙT
     71-30-7, Cytosine 73-40-5, Guanine
     RL: ANT (Analyte); ANST (Analytical study)
         (sepn. of, from nucleobases, chem.-Londed silica stationary phases for
         cation-exchange liq. chromatog.
     71-30-7 CAPLUS
EN
CN
     2(1H)-Pyrimidinone, 4-amino- (9CI) A INDEX NAME)
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69,546085 THE BATE O MECH: F. M. Gross Chem. Lab., Duke Univ., Durham, NC, 27706, :' UE 'E: ACS Symp. Ser. (1986), 297 (Chromatogr. Sep. Chem.), 210 - 25CODEN: ACSMC8; ISSN: 0090-6156 LOCUMENT TYLE: Journal LARVA WASHI English The use of keronic acid-substituted, amine-m. iifled silica rel stationary thates for the HHD' serm, of suchharides and nucleosides under neutral schall line was studied. Five stationary phases were prepd. using Partisil 10. The capacity factors for selected saccharides and nucleosides on columns packed with these stationary phases are given. The presence of residual amine groups in the surface bound, silica-based phenylboronic acid phases lowers the apparent pKa of the acid groups. This surface buffering effect permits boronate-saccharide complexation to occur at much lower pH values than is typically the case. 102712-18-5D, reaction products with silica del RL: ANST (Analytical study) as stationary phases for high-performance liq. chromatog sepn. of nucleosides and saccharides) RIL 102712-18-5 CAPLUS Boronic acid, [4-[[[s-(ethoxydimethylsilyl.prc;yi]amino]methyl;phenyl]-CD(901) (CA INDEX NAME) CEt CH2 NH (CH2)3 Si Me HO B OH 73-40-5 RI: ANT (Analyte); ANST (Analytical study: high-performance liq. shremateq. of, on bership anid-substituted amine-modified silica gel stationary phases:

73-4:1-5 CAFLUS \mathbb{R}^{n}

(H-Furin-A-one, 2-amino-1,7-lihydro- (301) (CA INDEX NAME)

919-30-2 18306-79-1

ANST (Analytical study)

OEt

Eto Si (CH2)3 NH2

OEt

18306-79-1 CAFLUN RN

 $\texttt{CN} = 1 - \texttt{Propanamine, } \beta - \sqrt{\texttt{ethoxydimethylsilyl}} - (9\texttt{CI}) = (\texttt{CA INDEX NAME})$

OEt

Me Si (CH2)3 NH2

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